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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,211	06/30/2000	Billy T. Upchurch	LAR 15851-1-CU	8192

7590

03/05/2002

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EXAMINER

NGUYEN, CAM N

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 03/05/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/607,211

Applicant(s)

Upchurch et al.

Examiner

Cam Nguyen

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Jun 30, 2000

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-24 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some\* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_

18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

#### *Claim Rejections - 35 USC § 112 (Second Paragraph)*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 23-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims respectively recite "the process of claim 1, wherein said process is used for the oxidation of carbon monoxide" and "the process of claim 1, wherein said process is used for the oxidation of volatile organic compounds". It appears that the process being claimed in claim 1 would not be used for the oxidation of the carbon monoxide and volatile organic compounds as applicants claiming in claims 23 & 24. It might be that applicants intend to recite the catalyst produced by the process of claim 1 is used for the oxidation of carbon monoxide and volatile organic compounds, but the claims do not particularly point out so.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al., "hereinafter Wood", (U.S. Pat. 6,132,694) taken together with Hinson (U.S. Pat. 5,705,082).

Wood discloses a preparation of platinum-tin oxide-based catalyst coatings from pellets, beads, granules, fabrics, and especially ceramic honeycomb monoliths by successive layering of the desired components, comprising: (1) a clean, dry substrate is deaerated in a solution containing tin (II) 2-ethylhexanoate (SnEH). The substrate is removed from the solution, and excess solution is removed from the substrate. Residual solution components are evaporated leaving an SnEH layer on the substrate which is thermally decomposed in air to tin oxide at 300°C. Several layers are applied in the same manner to achieve the desired loading of tin oxide. (2) if desired, a promoter is added to the catalyst matrix in a similar fashion. For example, iron oxide promoter is added to an existing tin oxide-coated substrate by ~~dearating in an iron nitrate~~ solution, removing excess solution, evaporating the solvent, and finally thermally decomposing the nitrate to oxide. The catalyst coated substrate is heated in an atmosphere containing a reducing gas such as carbon monoxide or hydrogen to induce reduction of the platinum salt to platinum (see col. 3, ln 32-57). Wood discloses the catalyst as described above is used in the oxidation of volatile organic compounds to carbon monoxide (see col. 4, ln 3- col. 5, ln 31).

The difference between the process disclosed by Wood and the claimed process, is that the process disclosed by Wood does not include step (d), which is etching of the coated substrate.

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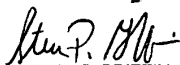
examiner can normally be reached on M-F from 8:30 am. to 6:00 pm, with alternative Monday off.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 (before finals) and (703) 872-9311 (after-final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Nguyen/cnn *CNN*

February 25, 2002

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

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However, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have incorporated this etching step into the process of Wood in order to obtain an improved catalyst having a roughened metal surface, in view of the advantage taught by Hinson, that etching of the coated metal surface is to remove the coating and to achieve controlled, reproducible, and desired levels of surface roughness, and able to achieve high levels of surface roughness (see Hinson at col. 3, ln 25-41).

#### *Citations*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gary (U.S Pat. 4,422,961), Upchurch et al. (U.S Pat. 4,991,181), Upchurch et al. (U.S Pat. 4,855,274), Upchurch (U.S Pat. 4,912,082), Bressel et al. (U.S Pat. 5,112,513), Kielin et al. (U.S Pat. 5,580,083), Jimarez et al. (U.S Pat. 5,509,557), Kolts et al. (U.S Pat. 5,017,357), Kolts et al. (U.S Pat. 5,017,357), Holt et al. (U.S Pat. 4,639,432) are cited for related art.

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#### *Conclusion*

4. Claims 1-24 are pending. Claims 1-24 are rejected. No claims are allowed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cam Nguyen, whose telephone number is (703) 305-3923. The